

Application Serial No. 10/579,274
Reply to Office Action of December 27, 2010

PATENT
Docket: CU-8471

REMARKS

In the Office Action, dated December 27, 2010, the Examiner states that Claims 1-11, 21 and 23-27 are pending, Claims 1, 2, 7-11, 21, 23-25 and 27 are rejected and Claims 3-6 and 26 are objected to. By the present Amendment, Applicant amends the claims.

Rejections under 35 U.S.C. §102(b) and 103(a)

Claims 1, 2, 9-11, 21, 23 and 24 are rejected under 35 U.S.C. §102(b) as being anticipated by US 6,220,357 (Carmichael). Claims 7, 8 and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over Carmichael in view of US 6,978,840 (Henderson). Claim 25 is rejected under 35 U.S.C. §103(a) as being unpatentable over Carmichael. Applicant respectfully disagrees with and traverses these rejections.

At the outset, Applicant thanks the Examiner for indicating that Claims 3-6 and 26 include allowable features. Applicant notes that it has amended Claims 1 and 21. Support for the amendments can be found at page 1, lines 17 to 18, page 24, line 9 to page 25, line 29 and in Figure 9.

The amendments to Claims 1 and 21 clarify the meaning of and the arrangement of the plug, which acts as a barrier and to isolate production zones when the plug is in the first natural state. The amendment to Claim 1 also clarifies that the arrangement of the plug when in the first or second closed state it can be tested against any amount of times.

Claims 1 and 21 now consistently recite that the plug can be opened only when the pressure is within a predetermined pressure range and held at the pressure for a predetermined time. The amendment to Claim 1 clarifies that the plug is closed in all pressure situations and is only open when the predetermined criteria is fulfilled.

In response to the Examiner's arguments, Applicant respectfully asserts that the amended claims are allowable for the following reasons:

With reference to Claim 1, Applicant respectfully asserts that the plug is now clearly defined as comprising a body including a bore through a portion thereof **thereby creating a barrier and providing isolation from production zones**. Carmichael does not teach or suggest a plug because it discloses a through

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bore, which does not create a barrier and does not provide isolation from production zones as is now clearly recited in Claim 1.

Furthermore, Applicant maintains that Carmichael does not teach or suggest a second closed state as now clearly recited in Claim 1 because in Carmichael, an increase of pressure from the initial closed position moves the sleeve to a primed configuration from which bleeding off pressure results in the sleeve moving to an open position. The plug of Claim 1 remains closed from a bleed off situation and this is now clearly recited in Claim 1. The radial ports in the plug of Claim 1 are only opened on an increase of pressure to a predetermined pressure range and being held there for a predetermined period of time. Carmichael does not teach or suggest this situation for opening the radial ports. Opening in Carmichael is done initially from bleed off from an increased in pressure, where the increase in pressure is a pressure high enough to shear the shear pin, or subsequently by application of a shifting tool 20 (see column 5, lines 13 to 65).

Carmichael describes that on decreasing the pressure from an initial elevated pressure that the ports open. This is contrary to the arrangement of the present invention where the radial ports are only open when the pressure is increased to a predetermined pressure range for a predetermined period of time. This is now recited in Claim 1 and is clearly illustrated in Figure 9 and described at page 24, line 9 to page 25, line 29. The plug of Claim 1 does not open when pressure is bled off see curve 154c even when that bleed off pressure is within the predetermined pressure range associated with opening the plug.

The plug of Claim 1 cannot be reclosed, but from the natural closed state (first position) will remain closed regardless of pressure as is now clearly defined in Claim 1. Carmichael remains closed only if the pressure is below the shear pin pressure or by use of a shifting tool. Therefore, the tool in Carmichael does not remain closed regardless of pressure as recited in Claim 1.

Claim 21 has also been amended to recite that the plug forms a barrier and provides isolation from production zones.

In view of the above, Applicant respectfully asserts that since Carmichael does not teach or suggest each and every feature of amended Claims 1 and 21, this reference cannot properly be cited as anticipating these claims.

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With respect to the obviousness rejections, Applicant respectfully asserts that that Henderson does not teach or suggest a plug that creates a barrier and isolates production zones because Henderson discloses a sand screen. Also, Applicant indicates that Henderson does not teach or suggest the other deficiencies of Carmichael as highlighted above with regard to Claim 1.

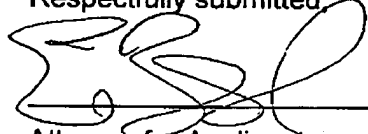
To support a *prima facie* case of obviousness, the Office Action must establish "a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference." Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of *KSR International Co. v. Teleflex Inc.*, 72 Fed. Reg. 57,526 (Oct. 10, 2007). Since the prior art does not teach or suggest each and every feature of the presently claimed invention, Applicant respectfully asserts that a *prima facie* case of obviousness cannot presently be established.

Since independent Claims 1 and 21 are allowable over the prior art, Applicant asserts that all claims depending therefrom are allowable for at least the same reasons, as well as for the features that they recite. As such, Applicant respectfully requests withdrawal of the present rejections under 35 U.S.C. §102(b) and 103(a).

In light of the foregoing response, all the outstanding objections and rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

March 7, 2011
Date

Respectfully submitted



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